

Specifications — FOX 500

NOTE The FOX 500 consists of a transmitter (FOX 500 Tx) and a receiver (FOX 500 Rx) with one or two fiberoptic cables linking the two units.

NOTE The analog RGB input signal is digitized pixel for pixel in the transmitter, sent digitally through the fibercable, and converted back to analog RGB in the receiver.

NOTE The analog audio signal(s) is (are) digitized in the transmitter, sent through the fiber cable, and converted back to analog audio in the receiver.

Optical fiber interconnection between transmitter and receiver

Number/type 1 or 2 fiber optic

NOTE Only one fiber is required to transmit video, audio, and unidirectional data. A second fiber is required to transmit return data for bidirectional control/communication.

Connectors 2 LC connectors

Operating distance

Singlemode..... 30 km (18.75 miles) with singlemode (SM) cables with a FOX 500 SM

Multimode..... 300 m (985') with 62.5 μ m multimode (MM) cables with a FOX 500 MM

1 km (3280') with 50 μ m multimode (MM) cables with a FOX 500 MM

2 km (6561') with 50 μ m 2000 MHz bandwidth laser optimized multimode cable with a FOX 500 MM

NOTE Operating distance is approximate. These are typical maximum distances that may vary depending on factors such as fiber type, fiber bandwidth, connector splicing, losses, modal or chromatic dispersion, environmental factors, and kinks.

Nominal peak wavelength..... 850 nm for FOX 500 MM, 1310 nm for FOX 500 SM

Data rate 4.25 Gbps

Transmission power

Singlemode..... -5 dBm, typical

Multimode..... -5 dBm, typical

Maximum receiver sensitivity

Singlemode..... -18 dBm, typical

Multimode..... -12 dBm, typical

Optical loss budget

Singlemode..... 13 dB, maximum

Multimode..... 7 dB, maximum

Video

Number/signal type..... 1 VGA-UXGA RGBHV, RGBS, RGsB, RsGsBs input
1 VGA-UXGA RGBHV, RGBS, RGsB, RsGsBs loop-through

Gain..... Unity

Pixel data bit depth..... 8 bits per channel, 3 channels (R, G, B)

Maximum resolution 1600x1200 @ 60 Hz, digitized pixel for pixel; higher resolutions up to 2048x1120, undersampled

Video input and loop-through — transmitter(FOX 500 Tx)

Number/signal type..... 1 VGA-UXGA RGBHV, RGBS, RGsB, RsGsBs input

1 VGA-UXGA RGBHV, RGBS, RGsB, RsGsBs loop-through

Connectors 1 x 5 female BNC or (1) female 15-pin HD for input
(1) female 15-pin HD for loop-through

Nominal level 0.7 Vp-p for RGB

Minimum/maximum levels..... Analog: 0.3 V to 1.5 Vp-p with no offset

Impedance..... 75 ohms

Horizontal frequency..... 24 kHz to 100 kHz

Vertical frequency..... 40 Hz to 120 Hz

Return loss..... <-40 dB @ 5 MHz

NOTE These transceivers are class 1 laser products. They meet the safety regulations of IEC-60825, FDA 21, CFR 1040.10, and FDA 21 CFR 1040.11.

Specifications — FOX 500, cont'd

Video output — receiver(FOX 500 Rx)

Number/signal type.....	2 VGA-UXGA RGBHV, RGBS, RGsB, RsGsBs (follows input or can be set by user)
Connectors	1 x 6 female BNC <i>and</i> (1) female 15-pin HD
Nominal level	0.7 Vp-p for RGB
Minimum/maximum levels.....	0.3 V to 1.5 Vp-p
Impedance.....	75 ohms
Return loss.....	-40 dB @ 5 MHz
DC offset.....	±5 mV with input at 0 offset
Video delay	1-2 frames

Sync

Input type.....	Autodetect RGBHV, RGBS, RGsB, RsGsBs
Output type.....	RGBHV, RGBS, RGsB, RsGsBs (follows input or can be set by user)
Input level	2.5 V to 5.0 Vp-p
Output level.....	TTL: 5.0 V p-p, unterminated, in HV or S; or 0.3 V p-p on Gs, terminated
Input impedance	510 ohms
Output impedance	75 ohms
Polarity.....	Positive or negative (follows input or can be set by user)

Audio

Gain	
Range	Adjustable, -18 dB to +10 dB
Default	
Captive screw connector	Unbalanced output: -6 dB; balanced output: 0 dB
Mini stereo jack.....	Unbalanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ±0.5 dB
THD + Noise.....	0.10% @ 1 kHz at nominal level
S/N.....	>80 dB at maximum output (unweighted)
CMRR.....	65 dB @ 20 Hz to 20 kHz
Audio bits per sample	18 bits per channel, 2 channels (L, R)
Sampling rate.....	48 kHz

Audio input — transmitter(FOX 500 Tx)

Number/signal type.....	2 inputs (mixed): 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono
Connectors	(1) 3.5 mm captive screw connector, 5 pole (1) 3.5 mm mini stereo jack
Impedance.....	18k ohms unbalanced, 20k ohms balanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level.....	+17 dBV, (unbalanced) at 1% THD+N

NOTE 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

Audio output — receiver(FOX 500 Rx)

Number/signal type.....	2 buffered outputs: 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono
Connectors	(1) 3.5 mm captive screw connector, 5 pole (1) 3.5 mm mini stereo jack
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level (Hi-Z)	>+19 dBu, unbalanced at 1% THD+N

Maximum level (600 ohm).....	>+15 dBm, unbalanced at 1% THD+N
Audio delay	1.5 frames

Control/remote

Serial control ports on each unit (transmitter and receiver)	
Control.....	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel) 1 RS-232, 2.5 mm mini stereo jack (front panel)
Pass-through.....	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel); in parallel with 1 RS-232, 2.5 mm mini stereo jack (front panel)
Baud rate and protocol	
Control.....	9600 baud, 8 data bits, 1 stop bit, no parity
Pass-through.....	9600 to 115,200 baud
Serial control pin configurations	
	Captive screw connectors: 1 = Tx, 2 = Rx, 3 = GND Mini stereo jack: tip = Tx, ring = Rx, sleeve = GND
Program control.....	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

General

Power	100 VAC to 240 VAC, 50-60 Hz, 11 watts, internal
Temperature/humidity.....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Convection, vents on top and sides
Mounting	
Rack mount.....	Yes, with optional rack shelf kit
Furniture mount.....	Yes, with optional under desk mounting kit
Enclosure type	Metal
Enclosure dimensions.....	1.7" H x 8.7" W x 9.5" D (1U high, half rack wide) (4.3 cm H x 22.1 cm W x 24.1 cm D) (Depth excludes connectors and knobs.)
Product weight	2.3 lbs (1.0 kg) per unit, 4.6 lbs (2.1 kg) per pair
Shipping weight.....	4 lbs (2 kg) per unit, 8 lbs (4 kg) per pair
Vibration.....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety.....	CE, CUL, FDA Class 1, UL
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI,
MTBF.....	30,000 hours
Warranty	3 years parts and labor

NOTE All nominal levels are at ±10%.

NOTE Specifications are subject to change without notice.

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